

## RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.

Application Serial Number: 10/775,169A  
Source: 1Fw/6  
Date Processed by STIC: 1/9/09

# ***ENTERED***

## CRF Errors Edited by the STIC Systems Branch

Serial Number: 10/275,169A

CRF Edit Date: 1/9/07  
Edited by: [signature]

\_\_\_ Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

\_\_\_ Corrected the SEQ ID NO. Sequence numbers edited were:

\_\_\_\_\_

\_\_\_ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

\_\_\_\_\_

\_\_\_ Deleted: \_\_\_ invalid beginning/end-of-file text ; \_\_\_ page numbers

\_\_\_ Inserted mandatory headings/numeric identifiers, specifically:

\_\_\_\_\_

\_\_\_ Moved responses to same line as heading/numeric identifier, specifically:

\_\_\_\_\_

\_\_\_ Other: Sequence 6-corrected <2227 response

\_\_\_\_\_

\_\_\_\_\_



IFW16

## RAW SEQUENCE LISTING

DATE: 01/09/2007

PATENT APPLICATION: US/10/775,169A

TIME: 13:03:05

Input Set : N:\AMC\775169.txt

Output Set: N:\CRF4\01092007\J775169A.raw

3 <110> APPLICANT: Burczynski, Michael  
 4 Twine, Natalie  
 5 Dorner, Andrew  
 6 Trepicchio, William  
 8 <120> TITLE OF INVENTION: Method for Monitoring Drug Activities In Vivo  
 10 <130> FILE REFERENCE: WYE-024  
 12 <140> CURRENT APPLICATION NUMBER: US 10/775,169A  
 13 <141> CURRENT FILING DATE: 2004-02-11  
 15 <150> PRIOR APPLICATION NUMBER: US 60/538,246  
 16 <151> PRIOR FILING DATE: 2004-01-23  
 18 <150> PRIOR APPLICATION NUMBER: US 60/459,782  
 19 <151> PRIOR FILING DATE: 2003-04-03  
 21 <150> PRIOR APPLICATION NUMBER: US 60/446,133  
 22 <151> PRIOR FILING DATE: 2003-02-11  
 24 <160> NUMBER OF SEQ ID NOS: 5278  
 26 <170> SOFTWARE: PatentIn version 3.2  
 28 <210> SEQ ID NO: 1  
 29 <211> LENGTH: 2405  
 30 <212> TYPE: DNA  
 31 <213> ORGANISM: Homo sapiens  
 33 <400> SEQUENCE: 1

34 gggggagggtg ggcaagcggc gaaatggcgc cctccgggag ttttgcagtt cccctggcag 60  
 36 tcttggtgct gttgcttttg ggtgctccct ggacgcacgg gcggcggagc aacgttcgcg 120  
 38 tcatcacgga cgagaactgg agagaactgc tggaggaga ctggatgata gaattttatg 180  
 40 ccccgagggtg ccttgcttgt caaaatcttc aaccggaatg ggaaagtttt gctgaatggg 240  
 42 gagaagatct tgagggttaat attgcgaaag tagatgtcac agagcagcca ggactgagtg 300  
 44 gacgggtttat cataactgct ctctactacta tttatcattg taaagatggt gaatttaggc 360  
 46 gctatcaggg tccaaggact aagaaggact tcataaactt tataagtgat aaagagtggg 420  
 48 agagtattga gcccggtttca tcatggtttg gtccagggtt tgttctgatg agtagtatgt 480  
 50 cagcactctt tcagctatct atgtggatca ggacttgcca taactacttt attgaagacc 540  
 52 ttggattgcc agtggtggga tcatatactg tttttgcttt agcaactctg ttttccggac 600  
 54 tgttattagg actctgtatg atatttgggg cagattgcct ttgtccttca aaaaggcgca 660  
 56 gaccacagcc gtacccatac ctttcaaaaa aattattatc agaactctgca caacctttga 720  
 58 aaaaagtggg ggaggaacaa gaggcggatg aagaagatgt ttcagaagaa gaagctgaaa 780  
 60 gtaaagaagg aacaaacaaa gactttccac agaatgccat aagacaacgc tctctgggtc 840  
 62 catcattggc cacagataaa tcttagttaa attttatagt tatcttaata ttatgatttt 900  
 64 gataaaaaa gaagattgat cattttgttt ggtttgaagt gaactgtgac ttttttgaat 960  
 66 attgcagggt tcagttctaga ttgtcattaa attgaagagt ctacattcag aacataaaaag 1020  
 68 cactaggtat acaagtttga aatatgattt aagcacagta tgatggttta aatagttctc 1080  
 70 taatttttga aaaatcgtgc caagcaataa gatttatgta tatttgttta ataataacct 1140  
 72 atttcaagtc tgagttttga aaatttacat tccccagta ttgcattatt gaggtattta 1200  
 74 agaagattat ttttagagaaa aatatttctc atttgatata atttttctct gtttcaactgt 1260  
 76 gtgaaaaaaa gaagatattt cccataaatg ggaagtttgc ccattgtctc aagaaatgtg 1320

*see p 6-7*

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TIME: 13:03:05

Input.Set : N:\AMC\775169.txt

Output Set: N:\CRF4\01092007\J775169A.raw

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78 tattttcagtg acaatttcgt ggtcttttta gaggtatatt ccaaaatttc cttgtatttt 1380
80 taggttatgc aactaataaa aactacctta cattaattaa ttacagtttt ctacacatgg 1440
82 taatacagga tatgctactg atttaggaag tttttaagtt catggtattc tcttgattcc 1500
84 aacaaagtgt gattttctct tgtatttttc ttacttacta tgggttacct tttttatttt 1560
86 tcaaattgga tgataatttc ttggaaacat tttttatggt ttagtaaaca gtattttctt 1620
88 gttgtttcaa actgaagttt actgagagat ccatcaaatt gaacaatctg ttgtaattta 1680
90 aaattttggc cacttttttc agattttaca tcattcttgc tgaacttcaa cttgaaattg 1740
92 tttttttttt tttttctttt tggatgtgaa ggtgaacatt cctgattttt gtctgatgtg 1800
94 aaaaagcctt ggtattttac attttgaaaa ttcaaagaag cttaatataa agtttgcac 1860
96 tctactcagg aaaaagcatc ttcttgata tgtcttaaag gtatttttgt cctcatatac 1920
98 agaaagtctt taattgattt tacagtctgt aatgcttgat gttttaaaat aataacactt 1980
100 ttatatattt taaaagacaa acatcatatt atcctgtggt ctttcttgac tggtaatat 2040
102 gtgtgggatt tcacaggtaa aagtcagtag gatggaacat tttagtgtat ttttactcct 2100
104 taaagagcta gaatacatag ttttcacctt aaaagaaggg ggaaaatcat aaatacaatg 2160
106 aatcaactga ccattacgta gtagacaatt tctgtaatgt ccccttcttt ctaggctctg 2220
108 ttgctgtgtg aatccattag atttacagta tcgtaatata caagttttct ttaaagccct 2280
110 ctcttttaga atttaaaata ttgtaccatt gaagagttcg gatgtgtaac ttgtgatgcc 2340
112 ttagaaaaat atcctaagca caaaataaac ctttctaacc acttcaaaaa aaaaaaaaaa 2400
114 aaac 2405
117 <210> SEQ ID NO: 2
118 <211> LENGTH: 1811
119 <212> TYPE: DNA
120 <213> ORGANISM: Homo sapiens
122 <400> SEQUENCE: 2
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125 cctcccggg agccccgcc gctgtgcgcg tcagatgcgc atggaagtgc agaaagaggc 120
127 acagcgcac atgacctgt cgggtgtgga gatgtatcac tcccgcatgc agcgcggtgg 180
129 cctgcggctg caccggagtc tgcagctgtc gctggtcacg cgcagcgcgc gggagctcta 240
131 cctctcggcc aaggtggagg cctcagagcc cgaggtgtcg ttgccggccg cctcccctc 300
133 tgacctcgc ctgcacccgc cccgagaagc cgagtcacac gccgagacag cgacccccga 360
135 cgggtgagcac ccgtttccgg agccaatgga cacgcaggag gcgccgacag ccgaggagac 420
137 ctccgcctgc tgtgccccgc gccccgccaa agtcagccgc aaacgacgca gcagcagcct 480
139 gagcgacggc ggggacgttg gactggtccc gagcaagaaa gcccgctctg aagaaaagga 540
141 agaagaggag ggagcgtcat ccgaagtgc cgatgcctg cagccccctc cgggccaagc 600
143 ggaggcgccc tttcccaacc tggcccgct cctgcagagg cgcttctcgc gctcctgaa 660
145 ctgcagcccc gcggccccctc cgacggcgcc gccgcgctgc gaggcaaagc ccgcttgccg 720
147 cccggcggac agcatgctca acgtgctcgt gcgggcgctg gtggccttct gaggaccccg 780
149 agcggcgctg ccggagccca gacgcgcgt cgaaccgtcg gcccgagggc gcagacctga 840
151 ggcgaggcca cccccctcca tctggggga agcgcgcgcg aaaaccgtgg agagaagccg 900
153 ccgcccgggc tgcagagagg cccggagagg actctgtccc cggggagcca tcgccttcag 960
155 tgtgcaggga cggcaccgag gactctgagc cgggcgcggg cgccttcgcg agagacctgc 1020
157 gccacaggt gctgtcttag tggactggga cgtgaacctt tcgctctcct tctggactgg 1080
159 gagaagggag gcttgggtgt tgtgtttttt gttttgtttg tttgtttgtt tttaaagatc 1140
161 tcctcagggt cggacttcat tttgtactgt gggctgtgct ggccttttca aggtttttca 1200
163 agagttgggt ttgcgtttcc aacctcggag aattccaggc actccccctc cccctcgcct 1260
165 gacatacttg tataagcggc catcgttgcg tcatggggca ggcgtgggga gcttctgtc 1320
167 gccttggtc ggtgtgggccc tggaggaagg tctggggcg tgcactcgcc tgggcagtgg 1380
169 ggaggagagt ggcctgagtt acttcacccc cgcgtgctgc tggttaatgt cccgcgtctc 1440
171 tgcaccttcg ggtgggagcg gggactgatc tactttcaca ttctcaagtt tttctcatct 1500

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Input Set : N:\AMC\775169.txt

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173 gcattagagg tccccagtag gttcccaggt tccagcgtgc ccctccctca gacacacgga 1560
175 cacaatcagc cgagaagttc ctggtctgaa tcacgagaat gtggaggggt ggggggtgtc 1620
177 agtggaaagg cataaggctg agctgagacc agttgctggt gaaactgggc caatctgggg 1680
179 aggggaacat ccttgccagg gagtttctga gggctctgctt tgtttacctt tcgtgcgggtg 1740
181 gattcttttt aactccgtct acctggcggt ttgttagaaa tgtcagatag gaaaataaaa 1800
183 accatttgag t 1811
186 <210> SEQ ID NO: 3
187 <211> LENGTH: 793
188 <212> TYPE: DNA
189 <213> ORGANISM: Homo sapiens
191 <400> SEQUENCE: 3
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194 ccgaggcagc tcgagcccag tccgcggccc cagcagcagc gccgagagca gcccagtag 120
196 cagcgccatg gccgggtgga acgcctacat cgacaacctc atggcgagac ggacctgtca 180
198 ggacgcggcc atcgtgggct acaaggactc gccctcgcgc tgggcgcgcg tccccgggaa 240
200 aacgttcgtc aacatcacgc cagctgaggt ggggtgtcctg gttggcaaag accggtcaag 300
202 tttttacgtg aatgggctga cacttggggg ccagaaatgt tcggtgatcc gggactcaact 360
204 gctgcaggat ggggaattta gcatggatct tcgtaccaag agcaccgggtg gggcccccac 420
206 cttcaatgtc actgtcacca agactgacaa gacgctagtc ctgctgatgg gcaaagaagg 480
208 tgtccacggg ggtttgatca acaagaaatg ttatgaaatg gcctcccacc ttcggcgctc 540
210 ccagtagtga cctcgtctgt ccttccctcc tcaccgctcc ccacagcttt gcacctttt 600
212 cctcccaata cacacacaaa ccattttatt ttttgggcca ttacccata ccccttattg 660
214 ctgccaaaac cacatgggct gggggccagg gctggatgga cagacacctc cccctaccca 720
216 tatccctccc gtgtgtgggt ggaaaacttt tgttttttgg ggtttttttt ttctgaataa 780
218 aaaagattct act 793
221 <210> SEQ ID NO: 4
222 <211> LENGTH: 502
223 <212> TYPE: DNA
224 <213> ORGANISM: Homo sapiens
226 <400> SEQUENCE: 4
227 tttttttttt tttttttttt tttttttttt ttgcatttgc aaagggacac tttattttctt 60
229 gttaaggggtg acagcctgca aggtagccat ccagcagcct ggggaagagca gcctctgggtt 120
231 aacaccagag acagacattt aggagcagga ggggtttggg caggagcttt atgctgaaga 180
233 ggttggtctaa acatacatat tcaacaggct acaggaggag ctatgaatat tcatgtaggt 240
235 ggttgacgtc catgcttatt gaacaaacat gtgtggaaca tatgatccca gcaatattta 300
237 aaatcttcat agtccatgat ctccacagcg accccttctt gactcaggct gcggcgccct 360
239 cctggtaaca tggatactgg aagtagtaga ggcggggcgt gaagatgggt agattcacgt 420
241 tgctgtgctt ggccaggaac tcggccacct cccctgcaca gtctgggcaa gggctccaag 480
243 atgtgtacca ggtgacctgg ta 502
246 <210> SEQ ID NO: 5
247 <211> LENGTH: 1015
248 <212> TYPE: DNA
249 <213> ORGANISM: Homo sapiens
251 <400> SEQUENCE: 5
252 tgattggtca ggcacggagc aggaggcggg ctgatagccc agcagcagca gcggcgggcg 60
254 cggctgcgga gcgggtgtga ggcggctgga ccgcgctgca ggcattccgc ggcgcggcaa 120
256 gatggaggtg acgggggtgt cggcaccacg gtgaccgttt tcatcagcag ctccctcagc 180
258 accttccgct ccgagaagcg atacagccgc agcctcacca tcgctgagtt caagtgtaaa 240
260 ctggagttgc tgggtgggag ccctgcttcc tgcattggaac tggagctgta tggagttgac 300

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## RAW SEQUENCE LISTING

DATE: 01/09/2007

PATENT APPLICATION: US/10/775,169A

TIME: 13:03:05

Input Set : N:\AMC\775169.txt

Output Set: N:\CRF4\01092007\J775169A.raw

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262 gacaagttct acagcaagct ggatcaagag gatgcgctcc tgggctccta ccctgtagat 360
264 gacggctgcc gcatccacgt cattgaccac agtggcgccc gccttggtga gtatgaggac 420
266 gtgtcccggg tggagaagta cacgatctca caagaagcct acgaccagag gcaagacacg 480
268 gtccgctctt tcctgaagcg cagcaagctc ggccgggtaca acgaggagga gcgggctcag 540
270 caggaggccg agggcgccca gcgcctggcc gaggagaagg ccaggccag cccatcccc 600
272 gtgggcagcc gctgtgaggt gcggcgggcg ggacaatccc ctgcggggg caccgtcatg 660
274 tatgtaggtc tcacagattt caagcctggc tactggattg gtgtccgcta tgatgagcca 720
276 ctggggaaaa atgatggcag tgtgaatggg aaacgctact tcgaatgcca ggccaagtat 780
278 ggcgcccttg tcaagccagc agtcgtgacg gtgggggact tcccggagga ggactacggg 840
280 ttggacgaga tatgacacct aaggaattcc cctgcttcag ctccatagctc agccactgac 900
282 tgcctctctt gtgtgtgccc atggcccttt tctcctgacc ccattttaat tttattcatt 960
284 ttttctcttg ccattgattt ttgagactca tgcattaaat tcactagaaa cccag 1015

```

287 &lt;210&gt; SEQ ID NO: 6

288 &lt;211&gt; LENGTH: 1484

289 &lt;212&gt; TYPE: DNA

290 &lt;213&gt; ORGANISM: Homo sapiens

293 &lt;220&gt; FEATURE:

294 &lt;221&gt; NAME/KEY: misc feature

295 &lt;222&gt; LOCATION: (317)..(1037)

296 &lt;223&gt; OTHER INFORMATION: Each "n" represents a nucleotide selected from a, t, g or c,

or

297 contains no nucleotide.

299 &lt;400&gt; SEQUENCE: 6

```

300 atttttatat tatttattta ttcttcgtta gtttgttttt ggagcgtggg ttttgttttg 60
302 ttttttgatt tttttctttt ttccgaccc acggatttat tcttattgcc caggcttgaa 120
304 gtgcaatggc gtgttctcag cttactcaac ctccgcctct tgggtttggg taattgttgt 180
306 gcctcggcct cctctgcct cttgggcttg ggcgattgtt ccacctcatc cgcctccgc 240
308 ctcttgggtt tcggtgattg ttccacctca tccacctcc acctcttggg gtttggggtg 300
W--> 310 ggtttttccg cctcggnctt cctgagtagc taaggaggga gtcttgagat tatcatccac 360
312 tgagggtgga agaggagagg gtggaagagg gacaaagaga cagtccttca gattatcatc 420
314 cactgagggt ggaagaggag aggggtggaag agggaccagg agacactcct tcagattatc 480
316 atccactgag ggtggaagag gagcaagagg acactccttg atattatcat cactgaggg 540
318 tgggaagggg tgaaggagac attcgggagg tgtcttgagg ctgagggagt tatcagttat 600
320 agaatgttgt tgagttggag gaggtggctg gcggcccac cgtgttttta aagtttcagc 660
322 tgtgaggtag ggccagcagg gcaatcctga agaattgatga tgctccgctg ccgccattct 720
324 gacctgtagg gccgaagaag ggaatgtttt cacacatatt catttgatgg acaaaattac 780
326 cgccaccaac acggtctgca ccttctgttg ctggtgatag atttnngcac ctttccatcc 840
328 tccaggtttc aaaatagnag tatcagtgtc ataatatcac ccttccactg agtactgccg 900
330 acagntgggg agtaaagaaa agtcattggg acacactgtt gtctccacat gccactgtgt 960
332 ctgtctgcaa atgtaggng gctgggggtc tgccccaggg aagacagagt cataacagag 1020
334 taataaagag gcatgtntga gacacaggag tgtctatgtc tatcctcatt cctccctcac 1080
336 agccatcacc agagcatgtt tcttgacca ggtcaacaga cagtaagaga ggcatgaaaa 1140
338 gccattgtc cacacatgtt gcagcttctt tttggagaat gttttccagg ctttttatgt 1200
340 tctgtctctg attctcggaa ctctgcaagg tcagtgtgac caccctgctc caaatctaag 1260
342 aaaacagagg ttaccagagg aaggagaaat tgtgcccggg gtcacacagc ttgcaagagg 1320
344 cagagtggaa gttgattcca gctctgcctg caggaccctc tcatttcccc tgtttccctt 1380
346 cttgataaag gatcttcttc actctggagg tgccacccat gagaacaaag agctctgcag 1440
348 agatgtggat tcctgaagag ctgcagggga actgggagag gggt 1484

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351 &lt;210&gt; SEQ ID NO: 7

352 &lt;211&gt; LENGTH: 1659

## RAW SEQUENCE LISTING

DATE: 01/09/2007

PATENT APPLICATION: US/10/775,169A

TIME: 13:03:05

Input Set : N:\AMC\775169.txt

Output Set: N:\CRF4\01092007\J775169A.raw

353 &lt;212&gt; TYPE: DNA

354 &lt;213&gt; ORGANISM: Homo sapiens

356 &lt;400&gt; SEQUENCE: 7

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357 tcagcgggag agtccccggc tctccagct ccttctctct ctctctctct ctcctccacc 60
359 tccggctttt gggggatcac tgtctctct cggcagcaga atgagccggc aggtgggtccg 120
361 ctccagcaag ttccgccacg tgtttggaca gccggccaag gccgaccagt gctatgaaga 180
363 tgtgcgcgtc tcacagacca cctgggacag tggcttctgt gctgtcaacc ctaagtttgt 240
365 ggccctgata tgtgaggcca gcgggggagg ggccttctgt gtgctgcccc tgggcaagac 300
367 tggacgtgtg gacaagaatg cggccacggg ctgtggccac acagccctgt tgcagacat 360
369 cgcctgggtg ccgcacaatg acaacgtcat tgccagtggc tccgaggact gcacagtcac 420
371 ggtgtgggag atcccgatg ggggctgat gctgccccct cgggagcccg tcgtcaccct 480
373 ggagggccac accaagcgtg tgggcattgt ggctggcac accacagccc agaacgtgct 540
375 gctcagtga ggttgtgaca acgtgatcat ggtgtgggac gtgggcaact gggcgcccat 600
377 gctgacactg ggcccagagg tgcacccaga cagcatctac agtgtggact ggagccgaga 660
379 tggaggcctc atttgtacct cctgccgtga caagcgcgtg cgcacatcag agccccgcaa 720
381 aggcactgtc gtagctgaga aggaccgtcc ccacgagggg acccgggccc tgcgtgcagt 780
383 gttcgtgtcg gaggggaaga tcttgaccac gggcttcagc cgcacagtg agcgccaggt 840
385 ggcgctgtgg gacacaaagc acctggagga gccgctgtcc ctgcaggagc tggacaccag 900
387 cagcgggtgc ctgctgccct tctttgacct tgacaccaac atcgtctacc tctgtggcaa 960
389 ggggtgacagc tcaatccggt actttgagat cacttccgag gcccctttcc tgcactatct 1020
391 ctccatgttc agttccaagg agtcccagcg gggcatgggc tacatgccc aacgtggcct 1080
393 ggaggtgaac aagtgtgaga tcgccaggtt ctacaagctg cagcagcgga ggtgtgagcc 1140
395 cattgccatg acagtgcctc gaaagtcgga cctgttccag gaggacctgt acccaccac 1200
397 cgcaggggcc gacctgccc tcacggctga ggagtggctg gggggtcggg atgctgggccc 1260
399 cctcctcatc tccctcaagg atggctacgt acccccaaag agccgggagc tgagggtcaa 1320
401 ccggggcctg gacaccgggc gcaggagggc agcaccagag gccagtggca ctcccagctc 1380
403 ggatgccgtg tctcggtgg aggaggagat gcggaagctc caggccacgg tgcaggagct 1440
405 ccagaagcgc ttggacaggc tggaggagac agtccaggcc aagtagagcc ccgcagggcc 1500
407 tccagcaggg tcagccattc acacccatcc actcacctcc cattcccagc cacatggcag 1560
409 agaaaaaaat cataataaaa tggctttatt ttctggtaaa aaaaaaaaaa aaaaaaaaaa 1620
411 aaaaaaaaaa aaaaaaaaaa aaaaaaaagg ggggggggga 1659

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414 &lt;210&gt; SEQ ID NO: 8

415 &lt;211&gt; LENGTH: 1980

416 &lt;212&gt; TYPE: DNA

417 &lt;213&gt; ORGANISM: Homo sapiens

420 &lt;220&gt; FEATURE:

421 &lt;221&gt; NAME/KEY: misc\_feature

422 &lt;222&gt; LOCATION: (5)..(5)

423 &lt;223&gt; OTHER INFORMATION: Each "n" represents a nucleotide selected from a, t, g or c,

or

424 contains no nucleotide.

426 &lt;400&gt; SEQUENCE: 8

```

W--> 427 tttntccag gtgagtaaga tagaggggag aagtgggacc agggagtcc aggtctgtga 60
429 acggccctgg ctgaggagct ggatcatgaa atctgagtc agtaagaagg aaattgagga 120
431 cagcagttgg gtattgcata gtgttactgt gttaaggta ggggtcaaag acttactggc 180
433 atggagtaac cagagtaagt gagctggaaa gatgagttat cagggcagag aggggtgctt 240
435 ggaattgagg ctttggagct gtgaaagtga caagatgcag gtattaccat gggagtcggc 300
437 agctgagggt gggtaaggga gatgctctgt ggaagggaga tgaaggcact gaagtcagcc 360
439 agaaacacaa aaactggtgg tggtagtgat gcagagtggc agtgagcccc aagcttccag 420
441 ttttctcctt ggacagtcac cgttaattat tattattatt ttttgagatg gagtttccct 480

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**RAW SEQUENCE LISTING ERROR SUMMARY**  
**PATENT APPLICATION: US/10/775,169A**DATE: 01/09/2007  
TIME: 13:03:06Input Set : N:\AMC\775169.txt  
Output Set: N:\CRF4\01092007\J775169A.raw**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; N Pos. 317,825,826,858,905,978,1037  
Seq#:8; N Pos. 5  
Seq#:13; N Pos. 665  
Seq#:22; N Pos. 604  
Seq#:23; N Pos. 2,224,236,239,270,273,277,329,337,341,361,372,378,385,392  
Seq#:23; N Pos. 393,462,475,486,488,501,502,504,505,509,511,512,517,521,525  
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Seq#:23; N Pos. 541,542,543,545,546,547,548,549,552,553,554,555,564,565,566  
Seq#:23; N Pos. 567,568,569,570,571,572,573,574,575,576,577,578,580,581,582  
Seq#:23; N Pos. 583,586,587,588,589,593,596,597,598,599,600,601,602,603,604  
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Seq#:23; N Pos. 665,666,667,668,669,670,671,672,673,674,675,676,677,678,679  
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Seq#:62; N Pos. 441  
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Seq#:90; N Pos. 840,841,842,844,845,846,848,849,851,852,854,855,856,857,858  
Seq#:90; N Pos. 859,860,861,862,864,865,866,867,868,869,871,880  
Seq#:125; N Pos. 2084



**RAW SEQUENCE LISTING ERROR SUMMARY**  
PATENT APPLICATION: US/10/775,169A

DATE: 01/09/2007  
TIME: 13:03:06

Input Set : N:\AMC\775169.txt  
Output Set: N:\CRF4\01092007\J775169A.raw

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Seq#:132; N Pos. 606,624,629,661,667,674,694  
Seq#:134; N Pos. 20,25,1158  
Seq#:163; N Pos. 27,766  
Seq#:208; N Pos. 694  
Seq#:210; N Pos. 57,58,59,60,61  
Seq#:217; N Pos. 228

## VERIFICATION SUMMARY

DATE: 01/09/2007

PATENT APPLICATION: US/10/775,169A

TIME: 13:03:06

Input Set : N:\AMC\775169.txt

Output Set: N:\CRF4\01092007\J775169A.raw

L:310 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:300  
M:341 Repeated in SeqNo=6  
L:427 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:759 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:660  
L:1087 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:600  
L:1105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0  
M:341 Repeated in SeqNo=23  
L:1513 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:540  
L:2541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:600  
L:10177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:420  
L:10193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0  
M:341 Repeated in SeqNo=63  
L:11529 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:240  
M:341 Repeated in SeqNo=76  
L:24345 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:0  
M:341 Repeated in SeqNo=90  
L:26891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:125 after pos.:2040  
L:26974 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:127 after pos.:480  
M:341 Repeated in SeqNo=127  
L:27244 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:132 after pos.:600  
M:341 Repeated in SeqNo=132  
L:27277 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:134 after pos.:0  
M:341 Repeated in SeqNo=134  
L:34141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:163 after pos.:0  
M:341 Repeated in SeqNo=163  
L:44581 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:208 after pos.:660  
L:44620 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:210 after pos.:0  
M:341 Repeated in SeqNo=210  
L:44914 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:217 after pos.:180  
L:44965 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:219 after pos.:360  
M:341 Repeated in SeqNo=219  
L:57452 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:253 after pos.:2100  
M:341 Repeated in SeqNo=253  
L:58295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:263 after pos.:240  
L:59712 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:275 after pos.:480  
L:60133 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:283 after pos.:0  
M:341 Repeated in SeqNo=283  
L:60660 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:291 after pos.:60  
M:341 Repeated in SeqNo=291  
L:60696 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:292 after pos.:180  
M:341 Repeated in SeqNo=292  
L:60716 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:293 after pos.:0  
M:341 Repeated in SeqNo=293  
L:60750 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:294 after pos.:0  
M:341 Repeated in SeqNo=294  
L:60838 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:297 after pos.:120  
M:341 Repeated in SeqNo=297  
L:60891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:299 after pos.:60

**VERIFICATION SUMMARY**

DATE: 01/09/2007

PATENT APPLICATION: US/10/775,169A

TIME: 13:03:06

Input Set : N:\AMC\775169.txt

Output Set: N:\CRF4\01092007\J775169A.raw

M:341 Repeated in SeqNo=299

L:60919 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:300 after pos.:0

**Raw Sequence Listing before editing  
(for reference only)**



IFW16

## RAW SEQUENCE LISTING

DATE: 01/08/2007

PATENT APPLICATION: US/10/775,169A

TIME: 14:46:53

Input Set : E:\Sequence Listing.ST25.txt

Output Set: N:\CRF4\01082007\J775169A.raw

3 <110> APPLICANT: Burczynski, Michael  
 4 Twine, Natalie  
 5 Dorner, Andrew  
 6 Trepicchio, William  
 8 <120> TITLE OF INVENTION: Method for Monitoring Drug Activities In Vivo  
 10 <130> FILE REFERENCE: WYE-024  
 12 <140> CURRENT APPLICATION NUMBER: US 10/775,169A  
 13 <141> CURRENT FILING DATE: 2004-02-11  
 15 <150> PRIOR APPLICATION NUMBER: US 60/538,246  
 16 <151> PRIOR FILING DATE: 2004-01-23  
 18 <150> PRIOR APPLICATION NUMBER: US 60/459,782  
 19 <151> PRIOR FILING DATE: 2003-04-03  
 21 <150> PRIOR APPLICATION NUMBER: US 60/446,133  
 22 <151> PRIOR FILING DATE: 2003-02-11  
 24 <160> NUMBER OF SEQ ID NOS: 5278  
 26 <170> SOFTWARE: PatentIn version 3.2  
 28 <210> SEQ ID NO: 1  
 29 <211> LENGTH: 2405  
 30 <212> TYPE: DNA  
 31 <213> ORGANISM: Homo sapiens  
 33 <400> SEQUENCE: 1

P.4  
 Does Not Comply  
 Corrected Diskette Needed

34	gggggaggtg	ggcaagcggc	gaaatggcgc	cctccgggag	tcttgacgtt	cccctggcag	60
36	tcctggtgct	gttgctttgg	ggtgctccct	ggacgcacgg	gcggcggagc	aacgttcgcg	120
38	tcatacagga	cgagaactgg	agagaactgc	tggaaggaga	ctggatgata	gaattttatg	180
40	ccccgtggtg	ccctgcttgt	caaaatcttc	aaccggaatg	ggaaaagttt	gctgaatggg	240
42	gagaagatct	tgaggttaat	attgcgaaag	tagatgtcac	agagcagcca	ggactgagtg	300
44	gacggtttat	cataactgct	cttcctacta	tttatcattg	taaagatggg	gaatttaggc	360
46	gctatcaggg	tccaaggact	aagaaggact	tcataaactt	tataagtgat	aaagagtggg	420
48	agagtattga	gcccgtttca	tcattggttg	gtccagggtc	tgttctgatg	agtagtatgt	480
50	cagcactctt	tcagctatct	atgtggatca	ggacttgcca	taactacttt	attgaagacc	540
52	ttggattgcc	agtgtgggga	tcataatactg	tttttgcttt	agcaactctg	ttttccggac	600
54	tgattattag	actctgtatg	atatattgtg	cagattgcct	ttgtccttca	aaaaggcgca	660
56	gaccacagcc	gtacccatac	ccttcaaaaa	aattattatc	agaatctgca	caacctttga	720
58	aaaaagtggg	ggaggaacaa	gaggcggatg	aagaagatgt	ttcagaagaa	gaagctgaaa	780
60	gtaaaagaag	aacaaacaaa	gactttccac	agaatgccat	aagacaacgc	tctctgggtc	840
62	catcattggc	cacagataaa	tcctagttaa	attttatagt	tatcttaata	ttatgatttt	900
64	gataaaaaca	gaagattgat	cattttgttt	ggtttgaagt	gaactgtgac	ttttttgaat	960
66	attgcagggt	tcagtctaga	ttgtcattaa	attgaagagt	ctacattcag	aacataaaag	1020
68	cactaggtat	acaagtgttg	aatatgattt	aagcacagta	tgatgggtta	aatagttctc	1080
70	taatttttga	aaaatcgtgc	caagcaataa	gatttatgta	tatttggtta	ataataacct	1140
72	atttcaagtc	tgagttttga	aaatttacat	ttcccaagta	ttgcattatt	gaggatattt	1200
74	agaagattat	tttagagaaa	aatattttct	atttgatata	atttttctct	gtttcactgt	1260
76	gtgaaaaaaa	gaagatattt	cccataaatg	ggaagtttgc	ccattgtctc	aagaaatgtg	1320

## RAW SEQUENCE LISTING

DATE: 01/08/2007

PATENT APPLICATION: US/10/775,169A

TIME: 14:46:53

Input Set : E:\Sequence Listing.ST25.txt

Output Set: N:\CRF4\01082007\J775169A.raw

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78 tattttcagtg acaatttcgt ggtcttttta gaggtatatt ccaaatttc cttgtatttt 1380
80 taggttatgc aactaataaa aactacctta cattaattaa ttacagtttt ctacacatgg 1440
82 taatacagga tatgctactg atttaggaag tttttaagtt catggatttc tcttgattcc 1500
84 aacaaagttt gattttctct tgtatttttc ttacttacta tgggttacat tttttatttt 1560
86 tcaaattgga tgataatttc ttggaaacat tttttatggt ttagtaaaca gtattttctt 1620
88 gttgtttcaa actgaagttt actgagagat ccatcaaatt gaacaatctg ttgtaattta 1680
90 aaattttggc cacttttttc agattttaca tctattcttg tgaacttcaa cttgaaattg 1740
92 tttttttttt tttttctttt tggatgtgaa ggtgaacatt cctgattttt gtctgatgtg 1800
94 aaaaagcctt ggtattttac attttgaaaa ttcaaagaag cttaatataa aagtttgcac 1860
96 tctactcagg aaaaagcatc ttcttgata tgtcttaaat gtatttttgt cctcatatac 1920
98 agaaagtctt taattgattt tacagtctgt aatgcttgat gttttaaaat aataacactt 1980
100 ttatattttt taaaagacaa acatcatatt atcctgtggt ctttctgac tggtaatatt 2040
102 gtgtgggatt tcacaggtaa aagtcagtag gatggaacat tttagtgtat ttttactcct 2100
104 taaagagcta gaatacatag ttttcacctt aaaagaaggg ggaaaatcat aaatacaatg 2160
106 aatcaactga ccattacgta gtagacaatt tctgtaatgt ccccttcttt ctaggctctg 2220
108 ttgtctgtgt aatccattag atttacagta tctgtaataa caagttttct ttaaagccct 2280
110 ctcttttaga atttaaaata ttgtaccatt gaagagttcg gatgtgtaac ttgtgatgcc 2340
112 ttagaaaaat atcctaagca caaaataaac ctttctaacc acttcaaaaa aaaaaaaaaa 2400
114 aaaaac 2405
117 <210> SEQ ID NO: 2
118 <211> LENGTH: 1811
119 <212> TYPE: DNA
120 <213> ORGANISM: Homo sapiens
122 <400> SEQUENCE: 2
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125 ccctcccggg agcccccgcc gctgtcgccg tccagtcgcc atggaagtgc agaaagaggc 120
127 acagcgcac atgaccctgt cgggtgtgga gatgtatcac tcccgcacgc agcgcggtgg 180
129 cctgcgggtg caccggagtc tgcagctgtc gctggtcatg cgcagcgcgc gggagctcta 240
131 cctctcggcc aaggtggagg ccctcgagcc cgaggtgtcg ttgccggccg ccctcccctc 300
133 tgacctctgc ctgcacctgc cccgagaagc cgaagtccac gccgagacag cgacccccga 360
135 cggtagcac ccgtttccgg agccaatgga cagcgaggag gcgccgacag ccgaggagac 420
137 ctccgcctgc tgtgccccgc gccccgcaa agtcagccgc aaacgacgca gcagcagcct 480
139 gagcgacggc ggggacgttg gactggtccc gagcaagaaa gcccgtctgg aagaaaagga 540
141 agaagaggag ggagcgtcat ccgaagtcgc cgatcgctg cagccccctc cgggccaagc 600
143 ggagggcgcc tttcccaacc tggcccgcgt cctgcagagg cgcttctccg gcctcctgaa 660
145 ctgcagcccc gcggccccctc cgacggcgcc gccgcgtgc gaggcaaagc ccgcttgccg 720
147 cccggcgac agcatgctca acgtgctcgt gcgggcccgt gtggccttct gaggaccccg 780
149 agcggcgctg ccggagccca gagcgcgctg cgaaccgtcg gcccgagggc gcagacctga 840
151 ggcgaggcca cccccctcca tcctggggga agcgcgccgc aaaaccgtgg agagaagccg 900
153 ccgcccgggc tctgagagg cccggagagg actctgtccc cggggagcca tcgccttcag 960
155 tgtgcaggga cggcaccgag gactctgagc cgggcgcggg cgcttccgc agagacctgc 1020
157 gccacaggt gctgtcttag tggactggga cgtgaacctt tcgctctcct tctggactgg 1080
159 gagaagggag gcttgggtgt tgtgtttttt gttttgtttg tttgtttgtt tttaaagatc 1140
161 tcctcagggt cggacttcat tttgtactgt gggctgtgct ggccctttca aggtttttca 1200
163 agagttggtt ttgcgtttcc aacctcgag aattccaggc actccccttc ccctccgct 1260
165 gacatacttg tataagcggc catcgcttgc tcatggggca ggcgtgggga gcttctgtc 1320
167 gccttggtg ggtgtgggccc tggagggaagg tcctggggcg tgcactcgcc tgggcagtgg 1380
169 ggaggagagt ggctgagtt acttcacccc cgcgtgctgc tgggttaatgt cccgcgtctc 1440
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## RAW SEQUENCE LISTING

DATE: 01/08/2007

PATENT APPLICATION: US/10/775,169A

TIME: 14:46:53

Input Set : E:\Sequence Listing.ST25.txt

Output Set: N:\CRF4\01082007\J775169A.raw

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173 gcattagagg tccccagtag gttcccaggt tccagcgtgc ccctccctca gacacacgga 1560
175 cacaatcagc cgagaagttc ctggtctgaa tcacgagaat gtggaggggt ggggggtgtc 1620
177 agtggaaaagg cataaggctg agctgagacc agttgctggt gaaactgggc caatctgggg 1680
179 aggggaacat ccttgccagg gagtttctga gggctctgctt tgtttacctt tcgtgcgggtg 1740
181 gattcttttt aactccgtct acctggcggt ttgttagaaa tgtcagatag gaaaataaaa 1800
183 accatttgag t 1811
186 <210> SEQ ID NO: 3
187 <211> LENGTH: 793
188 <212> TYPE: DNA
189 <213> ORGANISM: Homo sapiens
191 <400> SEQUENCE: 3
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194 ccgaggcagc tcgagccag tccgcggccc cagcagcagc gccgagagca gcccagtag 120
196 cagcgccatg gccgggtgga acgcctacat cgacaacctc atggcgggacg ggacctgtca 180
198 ggagcgggcc atcggtgggt acaaggactc gccctccgtc tggggccggcg tccccgggaa 240
200 aacgttcgtc aacatcacgc cagctgaggt ggggtgcctg gttggcaaag accggtcaag 300
202 tttttacgtg aatgggctga cacttggggg ccagaaatgt tcggtgatcc gggactcact 360
204 gctgcaggat ggggaattta gcatggatct tcgtaccaag agcaccggtg gggcccccac 420
206 attcaatgtc actgtcacca agactgacaa gacgtagtgc ctgtgatgg gcaagaagg 480
208 tgtccacggt ggtttgatca acaagaaatg ttatgaaatg gcctcccacc ttcggcgttc 540
210 ccagtactga cctcgtctgt cccttcccct tcaccgctcc ccacagcttt gcacccttt 600
212 cctcccata caccacacaa ccattttatt ttttgggcca ttaccata ccccttattg 660
214 ctgcaaaaac cacatgggct gggggccagg gctggatgga cagacacctc cccctaccca 720
216 tatccctccc gtgtgtggtt ggaaaacttt tgttttttgg ggtttttttt ttctgaataa 780
218 aaaagattct act 793
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222 <211> LENGTH: 502
223 <212> TYPE: DNA
224 <213> ORGANISM: Homo sapiens
226 <400> SEQUENCE: 4
227 tttttttttt tttttttttt tttttttttt ttgcatttgc aaagggacac tttatttctt 60
229 gttaaggggtg acagcctgca aggtagccat ccagcagcct gggaagagca gcctctgggt 120
231 aacaccagag acagacattt aggagcagga ggggtttggg caggagcttt atgctgaaga 180
233 ggttggtctaa acatacatat tcaacaggct acaggaggag ctatgaatat tcatgtaggt 240
235 ggttgagtc catgcttatt gaacaaacat gtgtggaaca tatgatcca gcaatattta 300
237 aaatcttcat agtccatgat ctccacagcg accccttcct gactcaggct gcggcgccct 360
239 cctggttaaca tggatactgg aagtagtaga ggcggcggt gaagatggtg agattcacgt 420
241 tgctgtgcct ggccaggaac tcggccacct cccctgcaca gtctgggcaa gggctccaag 480
243 atgtgtacca ggtgacctgg ta 502
246 <210> SEQ ID NO: 5
247 <211> LENGTH: 1015
248 <212> TYPE: DNA
249 <213> ORGANISM: Homo sapiens
251 <400> SEQUENCE: 5
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254 cggctgctga gcgggtgtga ggcggctgga ccgcgctgca ggcattccgc ggcgcggcaa 120
256 gatggaggtg acgggggtgt cggcaccacg gtgaccgttt tcatcagcag ctccctcagc 180
258 accttccgct ccgagaagcg atacagccgc agcctacca tcgctgagtt caagtgtaaa 240
260 ctggagttgc tgggtgggcag ccctgcttcc tgcattggaac tggagctgta tggagttgac 300

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## RAW SEQUENCE LISTING

DATE: 01/08/2007

PATENT APPLICATION: US/10/775,169A

TIME: 14:46:53

Input Set : E:\Sequence Listing.ST25.txt

Output Set: N:\CRF4\01082007\J775169A.raw

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262 gacaagttct acagcaagct ggatcaagag gatgcgctcc tgggctccta cctgttagat 360
264 gacggctgcc gcatccacgt cattgaccac agtggcgccc gccttggtga gtatgaggac 420
266 gtgtcccggg tggagaagta cacgatctca caagaagcct acgaccagag gcaagacacg 480
268 gtccgctctt tctgaagcg cagcaagctc ggccgggtaca acgaggagga gcgggctcag 540
270 caggaggccg aggccgccc ggcctggcc gaggagaagg cccaggccag ctccatcccc 600
272 gtgggcagcc gctgtgaggt gcgggcggcg ggacaatccc ctgcggggg caccgtcatg 660
274 tatgtaggtc,tcacagattt caagcctggc tactggattg gtgtccgcta tgatgagcca 720
276 ctggggaaaa atgatggcag tgtgaatggg aaacgctact tcgaatgcca ggccaagtat 780
278 ggcgctttg tcaagccagc agtcgtgacg gtgggggact tcccggagga ggactacggg 840
280 ttggacgaga tatgacacct aaggaattcc cctgcttcag ctccatagctc agccactgac 900
282 tgccctcct gtgtgtgccc atggcccttt tctcctgacc ccattttaat tttattcatt 960
284 ttttcctttg ccattgattt ttgagactca tgcattaaat tcactagaaa cccag 1015

```

287 &lt;210&gt; SEQ ID NO: 6

288 &lt;211&gt; LENGTH: 1484

289 &lt;212&gt; TYPE: DNA

290 &lt;213&gt; ORGANISM: Homo sapiens

293 &lt;220&gt; FEATURE:

294 &lt;221&gt; NAME/KEY: misc\_feature

295 &lt;222&gt; LOCATION: (317) (1073) (1037)

296 &lt;223&gt; OTHER INFORMATION: Each "n" represents a nucleotide selected from a, t, g or c,

or

297 contains no nucleotide.

299 &lt;400&gt; SEQUENCE: 6

```

300 atttttatat tatttattta ttcttcgtta gtttgttttt ggagcgtggg ttttgttttg 60
302 ttttttgatt tttttctttt tttccgaccc acggatttat tcttattgcc caggcttgaa 120
304 gtgcaatggc gtgttctcag cttactcaac ctccgcctct tgggtttggg taattgttgt 180
306 gcctcgccct ccctctgcct cttgggcttg ggcgattggt ccacctcatc cgccctccgc 240
308 ctcttggggt tcggtgattt ttccacctca tccacctctc acctcttggg gtttgggggtg 300
W--> 310 ggtttttccg cctcggmccct cctgagtagc taagggagga gtcttgagat tatcatccac 360
312 tgagggtgga agaggagagg gtggaagagg gacaaagaga cagtccttca gattatcatc 420
314 cactgagggt ggaagaggag aggggtggaag agggaccagg agacactcct tcagattatc 480
316 atccactgag ggtggaagag gagcaagagg acactccttg atattatcat ccactgaggg 540
318 tggaagggga tgaaggagac attcgggagg tgtcttgagg ctgagggagt tatcagttat 600
320 agaattgtgt tgagttggag gaggtggctg gcggcccatc ctgtttttta aagtttcagc 660
322 tgtgaggtag ggccagcagg gcaatcctga agaattgatga tgctccgctg ccgccattct 720
324 gacctgtagg gccgaagaag ggaatgtttt cacacatatt catttgatgg acaaaattac 780
W--> 326 cgccaccaac acggtctgca ctttctgttg ctggtgatag atttnnacac ctttccatcc 840
W--> 328 tccaggtttc aaaatagnag tatcagtgtc ataatatcac ccttccactg agtactgccg 900
W--> 330 acagntgggg agtaaagaaa agtcattggg acacactggt gtctccacat gccactgtgt 960
W--> 332 ctgtctgcaa atgtagnag gctgggggtc tgccccaggg aagacagagt cataacagag 1020
W--> 334 taataaagag gcatgtntga gacacaggag tgtctatgtc tatcctcatt cctccctcac 1080
336 agccatcacc agagcatgtt tcttgacca ggtcaacaga cagtaagaga ggcataaaaa 1140
338 gccattgtc cacacatgtt gcagcttctt tttggagaat gttttccagg ctttttatgt 1200
340 tctgtctctg attctcgaa ctctgcaagg tcagtgtgac caccctgctc caaatctaag 1260
342 aaaacagagg ttaccagagg aaggagaaat tgtgcccggt gtcacacagc ttgcaagagg 1320
344 cagagtggaa gttgattcca gctctgctg caggaccctc tcatttcccc tgtttccctt 1380
346 cttgataaag gatcttcttc actctggagg tgccacccat gagaacaaaag agctctgcag 1440
348 agatgtggat tctgaagag ctgcagggga actgggagag gggt 1484
351 <210> SEQ ID NO: 7
352 <211> LENGTH: 1659

```



## RAW SEQUENCE LISTING

DATE: 01/08/2007

PATENT APPLICATION: US/10/775,169A

TIME: 14:46:53

Input Set : E:\Sequence Listing.ST25.txt

Output Set: N:\CRF4\01082007\J775169A.raw

353 &lt;212&gt; TYPE: DNA

354 &lt;213&gt; ORGANISM: Homo sapiens

356 &lt;400&gt; SEQUENCE: 7

```

357 tcagcgggagc agtccccggc tcctccagct ccttcctcct ctctcctcctc ctctccacc 60
359 tccggctttt gggggatcac tgcctctctc cggcagcaga atgagccggc aggtgggtccg 120
361 ctccagcaag ttccgccacg tgtttggaca gccggccaag gccgaccagt gctatgaaga 180
363 tgtgcgcgtc tcacagacca cctgggacac tggcttctgt gctgtcaacc ctaagtttgt 240
365 ggccctgata tgtgaggcca gggggggagg ggccttcctg gtgctgcccc tgggcaagac 300
367 tggacgtgtg gacaagaatg cggccacggc ctgtggccac acagccctg tgcagacat 360
369 cgcctgggtg ccgcacaatg acaacgtcat tgccagtggc tccgaggact gcacagtcac 420
371 ggtgtgggag atcccggatg ggggcctgat gctgcccctg cgggagcccg tcgtaccct 480
373 ggagggccac accaagcgtg tgggcattgt ggctggcac accacagccc agaacgtgct 540
375 gctcagtga ggttgtaga acgtgatcat ggtgtgggac gtgggcactg gggcggccat 600
377 gctgacactg gggccagagg tgcaccaga cagatctac agtgtggact ggagccgaga 660
379 tggaggcctc atttgtaact cctgccgtga caagcgcgtg cgcacatcg agccccgcaa 720
381 aggcactgtc gtagctgaga aggaccgtcc ccacgagggg acccggcccg tgcgtgcagt 780
383 gttcgtgtcg gaggggaaga tcctgaccac gggcttcagc cgcagtgtg agcggcaggt 840
385 ggcgctgtgg gacacaaagc acctggagga gccgctgtcc ctgcaggagc tggacaccag 900
387 ggcgctgtgc ctgctgccct tctttgaccc tgacaccaac atcgtctacc tctgtggcaa 960
389 ggttgacagc tcaatccggt actttgagat cacttcagag gccctttcc tgcactatct 1020
391 ctccatgttc agttccaagg agtcccagcg gggcatgggc tacatgccc aacgtggcct 1080
393 ggaggtgaac aagtgtgaga tcgccagggt ctacaagctg cacgagcggg ggtgtgagcc 1140
395 cattgccatg acagtgcctc gaaagtcgga cctgttccag gaggacctgt acccaccac 1200
397 cgcaggggcc gaccctgcc tcacggctga ggagtggctg ggggggtcgg atgctgggcc 1260
399 cctcctcatc tcctcaagg atggtacgt acccccaaag agccgggagc tgagggtcaa 1320
401 ccggggcctg gacaccgggc gcaggagggc agcaccagag gccagtggca ctcccagctc 1380
403 ggatgccgtg tctcggtgg aggaggagat gcggaagctc caggccacgg tgcaggagct 1440
405 ccagaagcgc ttggacaggc tggaggagac agtccaggcc aagtagagcc ccgaggggcc 1500
407 tccagcaggg tcagccattc acaccatcc actcacctcc cattcccagc cacatggcag 1560
409 aaaaaaaaaa cataataaaa tggctttatt ttctggtaaa aaaaaaaaaa aaaaaaaaaa 1620
411 aaaaaaaaaa aaaaaaaaaa aaaaaaaagg ggggggggga 1659

```

414 &lt;210&gt; SEQ ID NO: 8

415 &lt;211&gt; LENGTH: 1980

416 &lt;212&gt; TYPE: DNA

417 &lt;213&gt; ORGANISM: Homo sapiens

420 &lt;220&gt; FEATURE:

421 &lt;221&gt; NAME/KEY: misc\_feature

422 &lt;222&gt; LOCATION: (5)..(5)

423 &lt;223&gt; OTHER INFORMATION: Each "n" represents a nucleotide selected from a, t, g or c,

or

424 contains no nucleotide.

426 &lt;400&gt; SEQUENCE: 8

```

W--> 427 tttntccag gtgagtaaga tagaggggag aagtgggacc agggagttcc aggtctgtga 60
429 acggccctgg ctgaggagct ggatcatgaa atctgagtca agtaagaagg aaattgagga 120
431 cacgagttgg gtattgcata gtgttactgt gtttaaggta cagggtcaaag acttactggc 180
433 atggagtaac cagagtaagt cagctggaaa gatgagttat cagggcagag aggggtgctt 240
435 ggaattgagg ctttggagct gtgaaagtga caagatgcag gtattaccat gggagtcggc 300
437 agctgagggt gggtaaaagg gatgctctgt ggaagggaga tgaaggcact gaagttagcc 360
439 agaaacacaa aaactggtgg tggtagtgat gcagagtggc agtgagcccc aagcttccag 420
441 ttttctcctt ggacagtcac cgttaattat tattattatt ttttgagatg gagtttccct 480

```

**RAW SEQUENCE LISTING ERROR SUMMARY**  
PATENT APPLICATION: US/10/775,169ADATE: 01/08/2007  
TIME: 14:46:54

FYI

Input Set : E:\Sequence Listing.ST25.txt  
Output Set: N:\CRF4\01082007\J775169A.raw**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:6; N Pos. 317,825,826,858,905,978,1037  
Seq#:8; N Pos. 5  
Seq#:13; N Pos. 665  
Seq#:22; N Pos. 604  
Seq#:23; N Pos. 2,224,236,239,270,273,277,329,337,341,361,372,378,385,392  
Seq#:23; N Pos. 393,462,475,486,488,501,502,504,505,509,511,512,517,521,525  
Seq#:23; N Pos. 526,527,528,529,530,531,532,533,534,535,536,537,538,539,540  
Seq#:23; N Pos. 541,542,543,545,546,547,548,549,552,553,554,555,564,565,566  
Seq#:23; N Pos. 567,568,569,570,571,572,573,574,575,576,577,578,580,581,582  
Seq#:23; N Pos. 583,586,587,588,589,593,596,597,598,599,600,601,602,603,604  
Seq#:23; N Pos. 605,606,607,608,609,610,611,612,613,614,615,616,617,618,619  
Seq#:23; N Pos. 620,621,622,623,624,625,626,627,628,629,630,631,632,633,634  
Seq#:23; N Pos. 635,636,637,638,639,640,641,642,643,644,645,646,647,648,649  
Seq#:23; N Pos. 650,651,652,653,654,655,656,657,658,659,660,661,662,663,664  
Seq#:23; N Pos. 665,666,667,668,669,670,671,672,673,674,675,676,677,678,679  
Seq#:23; N Pos. 680,681,682,683,684,685,686,687,688,689  
Seq#:28; N Pos. 542  
Seq#:43; N Pos. 648  
Seq#:62; N Pos. 441  
Seq#:63; N Pos. 2,335,374,384,422,432,448,458,471,477,482  
Seq#:76; N Pos. 256,340,345,369,423,524,546,558,596,618,631,653,661  
Seq#:90; N Pos. 42,220,249,370,396,400,401,440,441,442,443,450,456,476,477  
Seq#:90; N Pos. 478,479,483,484,485,486,487,488,489,491,492,496,498,499,500  
Seq#:90; N Pos. 501,502,504,509,511,512,513,514,515,517,519,520,521,522,523  
Seq#:90; N Pos. 524,525,526,527,528,529,530,531,532,533,534,535,536,537,538  
Seq#:90; N Pos. 539,540,541,542,544,545,546,547,549,550,551,552,553,554,555  
Seq#:90; N Pos. 556,557,558,559,560,561,562,564,565,566,567,568,569,570,571  
Seq#:90; N Pos. 572,573,574,575,576,577,578,580,581,583,584,585,586,587,588  
Seq#:90; N Pos. 589,591,592,593,594,596,597,598,599,600,601,602,603,604,605  
Seq#:90; N Pos. 606,607,608,609,610,611,612,613,614,615,616,617,618,619,620  
Seq#:90; N Pos. 621,622,623,624,625,627,628,629,630,631,632,633,634,635,636  
Seq#:90; N Pos. 637,638,639,640,641,642,643,645,646,647,649,650,652,654,655  
Seq#:90; N Pos. 656,657,658,659,660,661,663,665,666,667,668,669,671,672,673  
Seq#:90; N Pos. 674,677,678,679,680,681,682,683,684,685,686,687,689,690,691  
Seq#:90; N Pos. 693,694,695,696,697,698,699,701,704,706,707,708,709,710,714  
Seq#:90; N Pos. 715,716,717,721,722,723,724,726,727,730,731,733,735,736,738  
Seq#:90; N Pos. 739,740,742,743,745,746,747,749,750,751,752,754,755,756,758  
Seq#:90; N Pos. 759,760,761,763,765,766,767,768,770,771,773,774,775,776,778  
Seq#:90; N Pos. 780,781,782,783,785,786,787,788,790,791,792,793,794,795,796  
Seq#:90; N Pos. 799,800,801,802,803,804,805,807,808,809,810,812,814,815,816  
Seq#:90; N Pos. 817,818,819,820,822,823,824,825,826,827,829,831,833,835,839  
Seq#:90; N Pos. 840,841,842,844,845,846,848,849,851,852,854,855,856,857,858  
Seq#:90; N Pos. 859,860,861,862,864,865,866,867,868,869,871,880  
Seq#:125; N Pos. 2084

## VERIFICATION SUMMARY

DATE: 01/08/2007

PATENT APPLICATION: US/10/775,169A

TIME: 14:46:54

Input Set : E:\Sequence Listing.ST25.txt

Output Set: N:\CRF4\01082007\J775169A.raw

L:310 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:300  
L:326 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:780  
L:328 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:840  
L:330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:900  
L:332 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:960  
L:334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:1020  
L:427 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0  
L:759 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:660  
L:1087 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:600  
L:1105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0  
L:1111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:180  
L:1113 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:240  
L:1115 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:300  
L:1117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:360  
L:1119 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:420  
L:1121 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:480  
L:1123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:540  
L:1125 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:600  
L:1127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:660  
L:1513 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:540  
L:2541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:600  
L:10177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:420  
L:10193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:0  
L:10203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:300  
L:10205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:360  
L:10207 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:420  
L:10209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:480  
L:11529 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:240  
L:11531 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:300  
L:11533 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:360  
L:11535 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:420  
L:11537 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:480  
L:11539 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:540  
L:11541 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:600  
L:11543 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:76 after pos.:660  
L:24345 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:0  
L:24351 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:180  
L:24353 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:240  
L:24357 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:360  
L:24359 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:420  
L:24361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:480  
L:24363 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:540  
L:24365 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:600  
L:24367 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:660  
L:24369 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:720  
L:24371 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:780  
L:24373 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:90 after pos.:840  
L:26891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:125 after pos.:2040